

SMALL OPUP INSTALLATION AND CHECKOUT

DOPPLER METEOROLOGICAL RADAR WSR-88D



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DoD APPROVAL:

BY ORDER OF THE SECRETARY OF THE AIR FORCE

JOHN P. JUMPER, General, USAF
Chief of Staff

Date _____
Edward L. Berkowitz, Chief
Program Branch
Radar Operations Center
TOMA

1. SUBJECT

Small Open Principal User Processor (OPUP) Installation.

2. PURPOSE

To provide instructions on installing the new Small OPUP hardware and test it to ensure it is operating correctly. The Legacy Principal User Processor (PUP) functionality is being replaced by the Small OPUP. The authority for this TCTO is Engineering Change Proposal (ECP) 098, OPUP - Spiral I - PUP Hardware Rehost and Software Redesign to Support Association to Multiple RPGs and ECP 0163 - OPUP Spiral 2 Including the Addition of Navy OPUPs.

For additional information concerning this document, contact the ROC Hotline, Norman, OK; phone number: (800) 643-3363 or (405) 366-2980 or by e-mail at NEXRAD.Hotline@noaa.gov. An electronic copy of this document can be found at the following internet address:
www.roc.noaa.gov/ssb/sysdoc/techman/tmlinks.asp

3. SITES AFFECTED

See [ATTACHMENT 6](#).

4. ESTIMATED COMPLETION DATE

This modification must be completed and reported within 60 days of receiving this document and kit.

TCTO 31P1-4-108-607, dated 12 February 2003, MUST be completed before installing the OPUP.

Sites listed in ATTACHMENT 6, Table 3, who will not receive a Small OPUP will dispose of their Legacy PUP on 1 September 2004. DO NOT remove the Legacy OPUP from service prior to 1 September 2004.

5. EQUIPMENT AFFECTED

Principle User Processor (PUP) Group.

6. SPARES AFFECTED

All Legacy PUP spares will be obsolete after this modification and should be removed from local stock using AF Form 1261.

7. MODIFICATION ACCOMPLISHED BY

This modification will be performed by a representative from the PUP maintenance office along with the designated Systems Administrator for the weather office.

Coordination will be required with the Radar Operations Center (ROC) and the Radar Product Generator (RPG) site for the communications switch over.

Sites listed in ATTACHMENT 6, [Table 2](#) will have their OPUP installed by the ROC.

The site operations NEXRAD focal point is responsible for reporting the completion of this modification.

8. MATERIALS REQUIRED

Each site should have the designated place already selected for the installation of this equipment. The operations area should have the required power outlet and the relocated dedicated and dial connection, located within 6 feet.

UD86 Mod Kit - This equipment may be shipped to the site from 2 different places, the ROC and National Reconditioning Center (NRC). The equipment that needs to be configured and have software loaded on it will have that work done at the ROC. This includes the Processor, Communication Router, and Dedicated External Modem.

The following components will be shipped from the ROC:

Nomenclature	Part Number	NSN	Qty
UD86A2 - Processor (SunBlade 150)	2300040-301	NWS0-31-260-0002	1
UD86A2A1A50 Country Kit	2210045-202	NWS0-31-600-0001	1
UD86A5, Switch	2200120-203	NWS0-31-150-0003	1
UD86A6 - Dedicated 3261 Dedicated External Modem	1219739-211	5895-01-481-8672	1
UD86A7 - Archive IV Drive (Plextor)	2200121-201	NWS0-31-150-0004	1
UD86A8 - Communication Router (Cisco 2620)	2300033-301	NWS0-31-220-0008	1
UD86A14 - Power Strip			1
86W1 Cable	2320091-301	NWS0-31-150-0005	1

Nomenclature	Part Number	NSN	Qty
86W2 Cable	2320081-303		1
86W3 Cable	2320092-301	NWS0-31-150-0006	1
86W4 Cable	2320024-306		1
86W10 Cable	2320090-301		1
86W11 Cable	2320022-302		1
86W12 Cable	2320022-302		1
86W13 Cable	2320022-302		1
10 ft Power Cords 86W50-86W51 and 86W53 - 86W55	2320089-301	NWS0-11-360-0003	5
Power Cord 86W52			1
* OS Load Media/ Applications CD-ROM	N/A	N/A	5
Media Report	N/A	N/A	1
Mouse Pad	N/A	N/A	1
Archive IV CD-ROM disks	N/A	N/A	2
System Allocation Document (SAD)	N/A	N/A	1
**Box, with ESD Packing	N/A	N/A	2
**Federal Express Label	N/A	N/A	1

The following components will be shipped from the NLSC:

Nomenclature	Part Number	NSN	Qty
UD86A1 - 21 inch Monitor	2200118-201	NWS0-31-200-0001	1
UD86A10 - Smart UPS	2210053-201	NWS0-31-150-0001	1

* Will not be used in the procedures, but are sent for restoral purposes.

** Will not be shipped to sites that do not have a legacy PUP.

9. SOURCE OF MATERIALS

Kits are requisitioned by the ROC Retrofit Management Team and shipped at no cost to the site.

10. SPECIAL TOOLS AND TEST EQUIPMENT REQUIRED

Not applicable.

11. TIME AND PERSONNEL REQUIRED

Work Phases	Work Hours
Unpacking	0.2
Assembly	1.3
Coordinate Communications Switch Over	1.0
Operational Check	0.5
Total Work-hours	3.0

12. DOCUMENTS AFFECTED

The following technical manuals will be obsolete upon completion of this TCTO:

- a. Maintenance Instructions, Principal User Processor, dated 15 January 1996
 NWS: EHB 6-530
 DoD: AF TO 31P1-4-108-182
 FAA: TI 6345.1 V15
 Navy: EEM400-AE-MMM-010/WSR-88D
- b. Operations Instructions, Principal User Processor Group, dated 22 February 1995
 NWS: EHB 6-531
 DoD: AF TO 31P1-4-108-61
 FAA: TI 6460.1 V16
 Navy: EM400-AF-OPI-010/WSR88D
- c. User's Guide, Principal User Processor/Radar Product Generation Operational Position (PUP/RPGOP), dated 3 February 1995
 NWS: EHB 6-531-1
 DoD: AF TO 31P1-4-108-78-1
 FAA: 6460.1 V31
 Navy: EM400-AG-GYD-010

- d. Commercial Off the Shelf (COTS) Manual Tektronix Incorporated Model 4693DX Color Image Printer User Manual, dated 15 April 1993
NWS: EHB 6-532
DoD: AF TO 31P1-4-108-138-1
FAA: 6460.1 V18
Navy: EM400-AH-OPI-010/WSR-88D
- e. Commercial Off the Shelf (COTS) Manual Model 4693DX Color Image Printer, Part Number 4693D Field Service Manual, Print Engine Information, dated 15 April 1993
NWS: EHB 6-533 Vol 1
DoD: AF TO 31P1-4-108-132-1
FAA: TI 6460.1 V23
Navy: EM400-AJ-MMM-010
- f. Commercial Off the Shelf (COTS) Manual Model 4693DX Color Image Printer, Part Number 4693D Field Service Manual, Interface Information, dated 15 April 1993
NWS: EHB 6-533 Vol 2
DoD: AF TO 31P1-4-108-132-2
FAA: TI 6460.1 V24
Navy: EM400-AJ-MMM-101

The following manuals will replace the obsolete manuals listed above:

- a. Operations Instructions, Open Principal User Processor (OPUP), dated 15 January 2004.
NWS: EHB 6-536
DoD: AF TO 31P1-4-108-459-1
Navy: EM400-AT-OPI-010
- b. Maintenance Instructions, Open Principal User Processor (OPUP) Small, dated 15 January 2004.
NWS: EHB 6-538
DoD: AF TO 31P1-4-108-458-2
Navy: EM400-A3-MMO-010

13. VERIFICATION STATEMENT

This modification was successfully performed at Buckley AFB, CO.

14. DISPOSITION OF REMOVED AND REPLACED PARTS/MATERIALS

The Legacy PUP is to be powered down in accordance with TO 31P1-4-108-182, paragraph 4-3.4. The legacy PUPS will be turned into the appropriate supply office using the supplied AF Form 1261. (See ATTACHMENT 7 for an example)

Sites listed in [ATTACHMENT 6, Table 3](#), that do not receive an OPUP will dispose of their legacy PUPs using AF Form 1261 (See ATTACHMENT 8 for a sample form). The legacy PUPs are to be removed from service on 1 September 2004. DO NOT remove the legacy PUP from service prior to 1 September 2004.

All dedicated modems, Codex 3263, will be removed from the modem rack and shipped back to the NRC for restock, using the box, ESD packing, and Federal Express Label provided in the kit.

15. PROCEDURES

Perform the procedures in the following attachments:

- [ATTACHMENT 1](#) SMALL OPUP INSTALLATION AND CHECK-OUT
- [ATTACHMENT 2](#) SMALL OPUP CHECK-OUT PROCEDURE
- [ATTACHMENT 3](#) SMALL OPUP DIAL OUT TEST PROCEDURE
- [ATTACHMENT 4](#) SMALL OPUP ARCHIVE IV TEST PROCEDURE
- [ATTACHMENT 5](#) SMALL OPUP UPS TEST PROCEDURE

After the completion of the attachments above, complete the System Allocation Document (SAD) provided in the kit, and return a copy to the ROC, Retrofit Management Team, attention Mark Miller. The original SAD will be retained locally.

16. FAA DISTRIBUTION

Not applicable.

17. CHANGES TO TABLE OF CONTENTS (FAA)

Not applicable.

18. RECOMMENDATIONS FOR CHANGES (FAA)

Not applicable.

19. REPORTING INSTRUCTIONS

Update the AFTO Form 95 to show TCTO compliance. Report TCTO compliance in accordance with TO 00-20-2, Table 3-10, Rule 9.

Complete [ATTACHMENT 9](#) and return it to the ROC by one of the following methods:

- (1) Mailing Address: Program Branch, Retrofit Management Team
WSR-88D Radar Operations Center
3200 Marshall Ave., Suite 101
Norman, Oklahoma 73072-8028
- (2) Fax Number: (405) 366-6553
ATTN: Retrofit Management Team
- (3) E-mail Address: NEXRAD.Logistics@noaa.gov
- (4) Web Version: <http://www.roc.noaa.gov/ssb/logistics/complete/>

ATTACHMENT 1

SMALL OPUP INSTALLATION AND CHECK-OUT

Tools Required

Small flat-tip screw driver
Utility knife
Flashlight

1. Remove all the kit components from their boxes and inspect for any damage during shipping. Contact the ROC if any items are missing or damaged.
2. Place the Processor (UD86A2) (part number 2300040-301) on the table, as shown in [figure 1](#).
3. Place the Monitor (86A1) (part number 2200118-201) on top of the Processor (86A2), as shown in [figure 1](#).
4. Place the Communications Router (86A8) (part number 2300033-301) on the table, as shown in [figure 1](#).
5. Place the Dedicated Modem (86A6) (part number 1219739-211) on top of the Communications Router (86A8), as shown in [figure 1](#).
6. Place the Archive IV Drive (86A7) (part number 2200121-201) on top of the Communications Router (86A8), and next to the Dedicated Modem (86A6), as shown in [figure 1](#).
7. Place the Switch (86A5) (part number 2200120-201) on top of the Dedicated Modem (86A6), as shown in [figure 1](#).
8. Place the Keyboard (86A3) on the table in front of the Processor (UD86A2).
9. Place the Mouse (86A4) next to the Keyboard (86A3) on the table in front of the Processor (UD86A2) or on the keyboard tray, if provided.
10. Place the UPS (86A10) (part number [2210053-201](#)) on the floor, next to the PUP table, as shown in [figure 1](#).
11. Plug the power cord for the UPS (86A10) (part number [2210053-201](#)) into a power source.
12. Plug the Power Strip (86A14) into a power outlet in the UPS (86A10).

NOTE

Ensure all the equipment, including the UPS, has the power switch in the OFF position.

13. Install the following power cables:

ATTACHMENT 1 (Continued)

SMALL OPUP INSTALLATION AND CHECK-OUT

- a. Install the female end (P2) (86W51) (part number [2320089-301](#)) of the power cable into the rear of the processor (86A2).
 - b. Install the male end (P1) (86W51) (part number [2320089-301](#)) of the power cable into a power outlet in the UPS (86A10). It does not matter what outlet on the UPS you use.
 - c. Install the female end (P2) (86W50) (part number [2320089-301](#)) of the power cable into the AC IN jack at the rear of the monitor (86A1).
 - d. Install the male end (P1) (86W50) (part number [2320089-301](#)) of the power cable into a power outlet in the UPS (86W10). It does not matter what outlet on the UPS you use.
 - e. Install the female end (P2) (86W54) (part number [2320089-301](#)) of the power cable into the rear of the Archive IV drive (86A7).
 - f. Install the male end (P1) (86W54) (part number [2320089-301](#)) of the power cable into a power outlet in the UPS (86A10). It does not matter what outlet on the power strip you use.
 - g. Install the female end (P2) (86W52) of the power cable into the 7.5 vDC jack on the Switch (86A5).
 - h. Install the male end (P1) (86W52) of the power cable into open of the power outlet in the Power Strip (86A14). It does not matter what outlet on the power strip you use.
 - i. Install the female end (P2) (86W55) (part number [2320089-301](#)) of the power cable into the AC jack in the rear of the Communications Router (86A8).
 - j. Install the male end (P2) (86W55) (part number [2320089-301](#)) of the power cable into a power outlet in the UPS (86A10). It does not matter what outlet on the UPS you use.
 - k. Install the female end (P2) (86W53) (part number [2320089-301](#)) of the power cable into the AC jack in the rear of the Dedicated Modem (86A6).
 - l. Install the male end (P1) (86W53) (part number [2320089-301](#)) of the power cable into a power outlet in the UPS (86A10). It does not matter what outlet on the UPS you use.
14. Connect the **Keyboard** cable to any of the USB ports on the back of the Processor (86A2).
15. Connect the **Mouse** cable to any of the USB ports on the back of the Processor (86A2).
16. Connect the female end (P2) of the 86W2 cable (part number [2320081-303](#)) to the Video 1 jack on the back of the Monitor (86A1).
17. Connect the male end (P1) of the 86W2 cable (part number [2320081-303](#)) to the video connector on the back of the Processor (86A2).

ATTACHMENT 1 (Continued)

SMALL OPUP INSTALLATION AND CHECK-OUT

18. Connect the P1 end of the 86W3 cable (part number [2320092-301](#)) to the SCSI card in the PCI-1 slot on the back of the Processor (86A2). Secure all connections by finger tightening all screws.
19. Connect the P2 end of the 86W3 cable (part number [2320092-301](#)) to the SCSI IN (bottom) connector on the back of the Archive IV drive (86A7).
20. Connect the P1 end of cable 86W4 (part number [2320024-306](#)) to the **SERIAL** port on the back of the Processor (86A2).
21. Connect the P2 end of cable 86W4 (part number [2320024-306](#)) to the 9-pin serial port near the top left of the back of the UPS (86A10).
22. Connect the P1 end of cable 86W13 (part number [2320022-302](#)) to the NETWORK <...> port on the back of the Processor (86A2).
23. Connect the P2 end of cable 86W13 (part number [2320022-302](#)) to the Port 2 jack on the back of the Switch (86A5).
24. Connect the P1 end of cable 86W12 (part number [2320022-302](#)) to the 10/100 ETHERNET 0/0 jack on Communications Router (86A8).
25. Connect the P2 end of cable 86W12 (part number [2320022-302](#)) to the Port 1 jack on the back of the Switch (86A5).
26. Connect the P1 end of cable 86W1 (part number [2320091-301](#)) to the SERIAL0 jack on Communications Router (86A8).
27. Connect the P2 end of cable 86W1 (part number [2320091-301](#)) to the DTE jack on the back of the Dedicated Modem (86A6).
28. Connect the P1 end of cable 86W11 (part number [2320022-302](#)) to the LEASE LINE jack on Dedicated Modem (86A6).
29. Connect the P2 end (RJ45) of cable 86W11 (part number [2320022-302](#)) to the dedicated TELCO jack located by the PUP location. This is the connection for the dedicated circuit.
30. Connect the P1 end of cable 86W10 (part number [2320090-301](#)) to the Port 7 jack on Communications Router (86A8).
31. Connect the P2 end (RJ11) of cable 86W10 (part number [2320090-301](#)) to the dial TELCO jack located by the OPUP location. This is the connection for the dial circuit.
32. If installing a Printer (86W12), perform the following steps. If not proceed to step [33](#).
 - a. Place the Printer (86W12) on a table, no further then 5 feet from the Switch (86A5).

ATTACHMENT 1 (Continued)

SMALL OPUP INSTALLATION AND CHECK-OUT

- b. Connect the P2 end of cable 86W58 to the AC jack on the back of the printer.
 - c. Connect the P1 end of cable 86W58 to an AC power source. DO NOT connect cable 86W58 to the UPS. The UPS is not rated to support the printer.
 - d. Connect the P2 end of cable 86W14 to the Port 3 Jack at the rear of the switch (86A5).
 - e. Connect the P1 end of cable 86W14 to the Ethernet Jack of the Printer (86A12).
33. Coordinate the communications switch over.
- a. A representative from the ROC will coordinate with the RPG site to ensure [TCTO 31P1-4-108-607](#) (NWS [Modification Note 65](#)) has been completed on the RPG and everything is ready at the RPG for the communications switch over.
 - b. Contact the ROC Hotline (1-800-643-3363) to ensure everything has been done at the OPUP site to begin reusing the old phone lines at the new OPUP equipment location.

NOTE

For the next step, the Processor should be the last device powered ON. This ensures good communications with all of the peripheral devices and all messages displayed on the monitor during the boot sequence will be seen.

34. Once the communications switch over is completed:
- a. Power **ON** the UPS by pressing the I/Test button on the front of the UPS.
 - b. Ensure the Power Strip is set to the **ON** position.
 - c. At the Communications Router (86A8) place the power switch to the ON position.
 - d. At the Archive IV Device (86A7) place the power switch to the ON position.
 - e. At the Dedicated Modem (86A6) place the power switch to the ON position.
 - f. At the Monitor (86A1) press the power button to turn On power to the monitor.
 - g. At the Processor (86A2) press the power button to power on the processor.
35. Observe the boot sequence and report any error messages to the ROC Hotline (1-800-643-3363).

ATTACHMENT 1 (Continued)

SMALL OPUP INSTALLATION AND CHECK-OUT

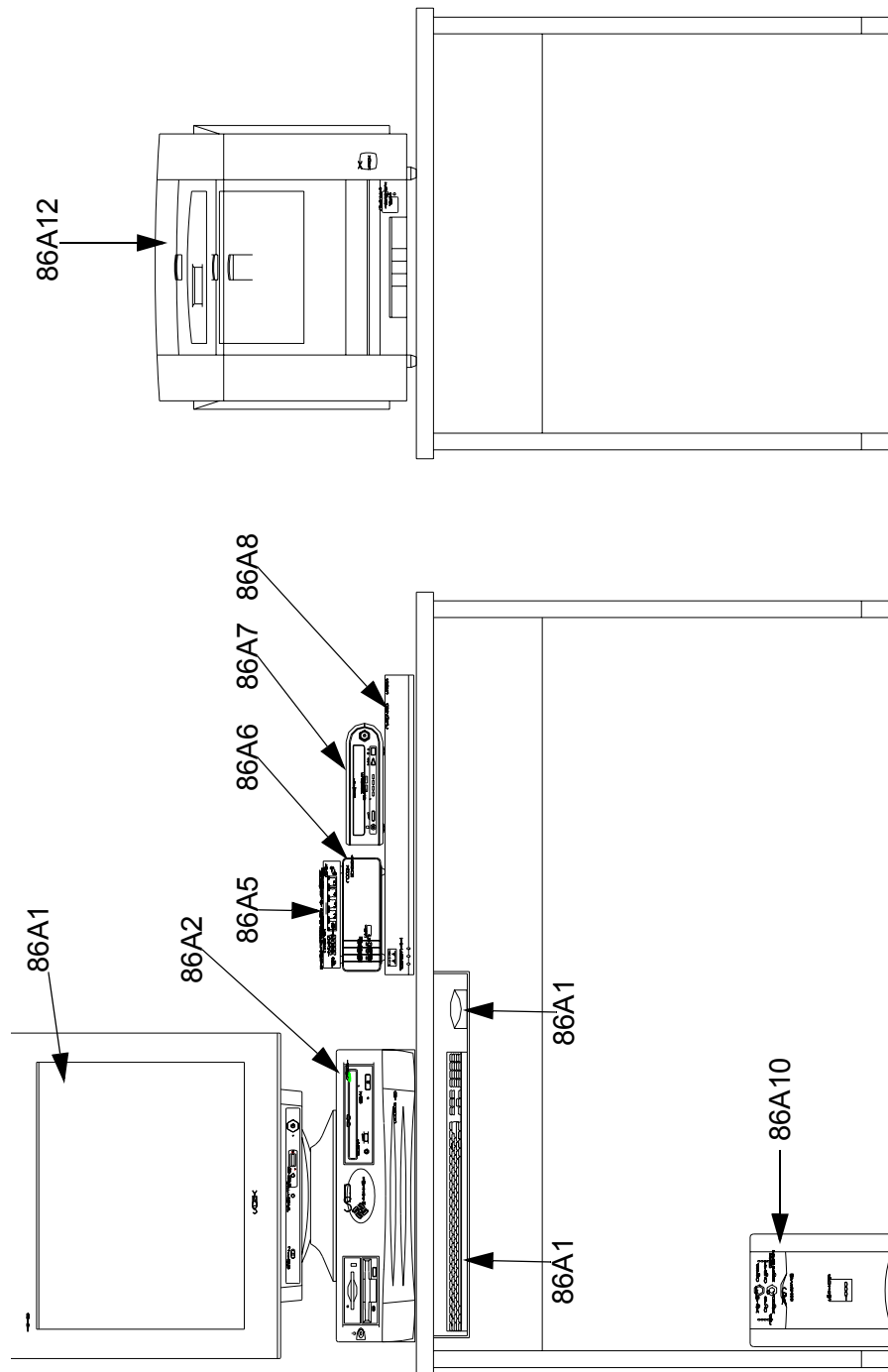


Figure 1. Stand-Alone Small OPUP Configuration

ATTACHMENT 2

SMALL OPUP CHECK-OUT PROCEDURE

1. Login to the OPUP as the System Administrator using the user name of **opupmgr**<Return>. Enter **Opupmgr1#** followed by the <Return> key to complete the login as the System Administrator.
2. Once the Common Desktop Environment (CDE) is displayed, click on the **Netscape globe** icon on the left side of the CDE Control Panel at the bottom of the display to start the Netscape browser.
3. One or more Netscape pop-up windows may appear with various messages. Click on the **OK** button in each pop-up window until the Netscape home window is displayed.
4. Click anywhere on the grey background area of the Netscape home window to start the sign on process.
 - a. In the `Netscape: Password` window, at the `User ID:` box, enter **opupmgr** then press either the <Return> or the <Tab> key to place the cursor in the `Password:` box.
 - b. In the `Password:` box enter **Opupmgr1#** that was used previously.
 - c. Click on the **OK** button.
5. From the OPUP Manager Main Menu, click on the **OPUP Users Menu** button to display the OPUP User Menu window.
6. Perform the following steps to change the opupmgr password:
 - a. At the OPUP User Menu window, click on the **Change User Password** button.
 - b. At the OPUP Manager Change User Password, click in the `User Name: edit field` and enter **opupmgr**, and then press the <Tab> key. The cursor will be in the `Password: edit field`.

NOTE

All passwords must meet the following requirements:

- Minimum of eight (8) characters in length.
- Contain at least one special character within the first 8 characters
(!, @, %, (, _, + {, [, #, =, \$, *)
- Contain at least one (1) UPPERCASE character (A through Z)
- Contain at least one (1) lowercase character (a through z)
- Contain at least one number (0 through 9)

ATTACHMENT 2 (Continued)

SMALL OPUP CHECK-OUT PROCEDURE

- c. In the `Password: edit` field, enter a new password for `opupmgr`, and then press the **<Tab>** key. The cursor will then be in the `Reenter password: field`.
 - d. In the `Reenter password: field`, reenter the password exactly the same way it was enter in the previous step, and then click on the **Save** button.
 - e. Click the **Return to Main Menu** button. The `OPUP Manager Main Menu` will be displayed.
7. From the `OPUP Manager Main Menu`, click on the **OPUP Software Menu** button to display the `OPUP Software Menu window`.

ATTACHMENT 2 (Continued)

SMALL OPUP CHECK-OUT PROCEDURE

8. From the OPUP Software Menu, click on the **OPUP Process Status** button to display the OPUP Process Status window. Processes that are running will have information in the columns out to the right of the process name such as the PID, %CPU, %MEM, etc. Ensure the following software processes have automatically started running. If no task is displayed to the right of the OPUP APPPS/Task column, return to the previous menu by clicking on the **Return to Last Screen** button and then click on the **Start OPUP** button.

OPUP Applications and Tasks
running on osfopup1server
Fri Apr 25 13:54:20 GMT 2003

OPUP App/Task	USER	PID	%CPU	%MEM	RSS	VSZ	OSZ	TIME	COM
dmcu.....	opupmgr	6538	0.2	0.5	9216	18768	2346	0:00	/ho
mcu.....	opupmgr	6580	0.3	0.5	9448	18976	2372	0:00	/ho
mcu.....	opupmgr	6577	0.3	0.5	9672	18976	2372	0:00	/ho
mcu.....	opupmgr	6571	0.4	0.5	9616	18976	2372	0:00	/ho
mcu.....	opupmgr	6589	0.3	0.5	9320	18976	2372	0:00	/ho
mcu.....	opupmgr	6565	0.3	0.5	9456	18976	2372	0:00	/ho
mcu.....	opupmgr	6586	0.3	0.5	9640	18976	2372	0:00	/ho
mcu.....	opupmgr	6583	0.3	0.5	9632	18976	2372	0:00	/ho
mcu.....	opupmgr	6568	0.4	0.5	9456	18976	2372	0:00	/ho
mcu.....	opupmgr	6574	0.4	0.5	9448	18976	2372	0:00	/ho
PurgeDatabase.....	opupmgr	6776	0.2	0.4	7264	18488	2311	0:00	Pur
AlertServer.....	opupmgr	6845	0.3	0.6	11680	17680	2210	0:00	Ale
Terminator1Server...	opupmgr	6866	0.2	0.5	10072	16656	2082	0:00	Ter
ProductServer.....	opupmgr	6884	0.5	0.6	12040	17128	2141	0:00	Pro
otrserver.....	opupmgr	6990	0.3	0.6	10296	17896	2237	0:00	otr
cm_top.....	opupmgr	6682	0.2	0.2	3264	3664	458	0:00	/ho
cm_top.....	opupmgr	6714	0.1	0.2	2904	3368	421	0:00	/ho
cm_top.....	opupmgr	6742	0.2	0.2	3120	3648	456	0:00	/ho
rssd.....	opupmgr	6399	0.1	0.1	1384	2824	353	0:00	/ho

OPUP GUI Applications

9. Click on the **Return to Main Menu** button to return to the OPUP Manager Main Menu.

ATTACHMENT 2 (Continued)

SMALL OPUP CHECK-OUT PROCEDURE

Add New User

NOTE

To complete the OPUP Check-out procedures, you must create at least (1) one user account. You may create accounts for all the users, but they will need to create their own passwords.

10. Click on the **OPUP Users Menu** button to display the `OPUP Users Menu`.
11. Click on the **Add New User** button to display the `OPUP Manager Add New User` window.
12. In the `User Information:` area of the window, click in the `User Name:` edit area to activate the field for text entry.

NOTE

All user name must meet the following requirements:

- Minimum of three (3) characters in length.
- Contain at least two (2) alpha character (A through Z or a through z)
- Contain at least one number (0 through 9) or special character (!, @, %, (, _, + {, [, #, =, \$, *)

13. Enter any combination of letters and numbers that meet the requirements above to create a unique Account Name. Character case is very important when creating an Account Name. Future access to this account will require the exact same case for each character as entered here.
14. Press the **<Return>** or **<Tab>** key or click in the `Password:` edit area to activate the field for text entry.

NOTE

All passwords must meet the following requirements:

- Minimum of eight (8) characters in length.
- Contain at least one special character within the first 8 characters (!, @, %, (, _, + {, [, #, =, \$, *)
- Contain at least one (1) UPPERCASE character (A through Z)
- Contain at least one (1) lowercase character (a through z)
- Contain at least one number (0 through 9)

ATTACHMENT 2 (Continued)

SMALL OPUP CHECK-OUT PROCEDURE

15. Enter any combination of letters and numbers that meets the requirements above to create a unique password for this account. Character case is very important when creating an account password. Future access to this account will require the same case for each character as entered here.
16. Press the **<Return>** or **<Tab>** key or click in the `Reenter password:` edit area to activate the field for text entry.
17. Enter the *password* exactly as it was entered previously. This ensures the password was not mistyped/misspelled.

NOTE

Any field may be edited at any time if an error is made. Clicking on the **Reset Form** button clears all entries in the window.

Clicking on the **Return to Main Menu** button exits this window without saving any of the new user information. To save the new user information proceed to the next step.

18. Click on the **Save** button. A `New User Confirmation` window is displayed with the account name contained in the window title.
19. Ensure the correct information is displayed. If not, return to the `OPUP Users Menu` and click the **Delete User** button to begin the process of deleting the wrong user. Perform steps 10 through 18 of this procedure over again.
20. Once a new user has been added correctly, click on the **Return to Main Menu** button to return to the `OPUP Manager Main Menu`.
21. Logout of CDE as follows:
 - a. Click on the **EXIT** button near the bottom center of the CDE Control Panel.
 - b. In the Logout Confirmation pop-up window, click on the **OK** button to continue to logout.
22. Login to the OPUP using the user name and password created in steps 13 and 17.
23. Once the CDE is displayed, click on the **Status & Control** icon near the left hand side of the CDE Control Panel to open up the `Status and Control` window. A green dot should appear on the Network Map display at the location of the Dedicated RPG location. This indicates the system has been installed correctly and is operating correctly. If a green dot does not appear on the Network Map display, contact the ROC Hotline (1-800-643-3363) for assistance.

ATTACHMENT 2 (Continued)

SMALL OPUP CHECK-OUT PROCEDURE

24. Click on the red double arrow **EXIT** button near the upper right hand corner of the window to close the Status and Control window.

ATTACHMENT 3

SMALL OPUP DIAL OUT TEST PROCEDURE

1. To test the capability to dial out to an RPG, first open the Product Display GUI (PDGUI) by clicking on the **Product Display** icon on the far left hand side of the CDE Control Panel. Wait for the 12 panel (numbered 0 through 11) Product Display window to open.
2. Click on a small green square **Product Selection** button in any of the 12 display panels to display the small Product Selection pop-up window.
3. Click on the **Dedicated** button next to `RPG Type` to display a small drop down option window of RPG types.
4. Click on the Area of Responsibility (AOR) **AOR** option. The RPG list box should now be populated with the appropriate subset of RPG IDs matching the Area of Responsibility option.
5. Note the four character **RPG** ID currently displayed in the `RPG` box. Click on the RPG ID button to open up a drop down option window displaying a list of all AOR RPG IDs. These should be the RPGs adjacent to the Small OPUP being installed.

NOTE

For the next step you need to select a radar that has already switched dial communications over to TCP/IP. While the OPUP Team will coordinate all communications changes, they provide that information to the ROC Hotline. Give the Hotline a call to confirm which radar(s) in your AOR have been converted (1-800-643-3363).

6. Click on the desired **RPG** ID. This will close the drop down option window and display the selected RPG ID in the `RPG` box. This should be an RPG adjacent to the Small OPUP being installed that has already done the communications switch over. There may need to be some coordination with the ROC and the adjacent RPG to ensure the communications switch over has been done.
7. Click on the **Base Reflectivity** button next to `Category` to display a drop down option window of product types and ensure base reflectivity is selected.
8. Using the mouse, click on the elevation angle of .5 and a resolution of .54.
9. Using the mouse, click on the desired product parameters (elevation, resolution, if applicable).
10. Click on the **OTR** button at the bottom of the window to display the `PDOTRDialog` window.
11. Modify any specific OTR parameters as desired.

ATTACHMENT 3 (Continued)

SMALL OPUP DIAL OUT TEST PROCEDURE

NOTE

The next step may take up to 1 minute to display the product.

12. Click on the **Send/Clear** button at the bottom of the window. The OTR request will be formatted and sent to the selected RPG. The originating panel and register in the PDGUI will be cleared. When the product is received, the product received message and the product itself will be displayed in the originating panel.
13. Close the PDGUI window by clicking on the red double arrow located on the PDGUI toolbox.

ATTACHMENT 4

SMALL OPUP ARCHIVE IV TEST PROCEDURE

NOTE

This procedure is divided into four sections. The first section involves identifying, selecting, and saving the data to be archived to the OPUP hard drive as an OPUP operator. The second section involves copying that data from the OPUP hard drive to the Archive IV CD-ROM device as the System Administrator. The third section involves removing the data from the OPUP hard drive that was archived and then copying the data back off of the CD-ROM to the OPUP hard drive as the System Administrator. The fourth section reads the data from the OPUP hard drive and displays it on the monitor as an OPUP operator.

Saving Data for Archive

1. Login as a user.
2. Click on the **Status & Control** icon near the left hand side of the Common Desktop Environment (CDE) front panel to display the Status and Control window.
3. Click on the **Archive** selection near the top of the window to display the `Archive` window.
4. Ensure that `Dedicated` is displayed in the RPG type button above the `RPG` area on the left side of the window. If not, click on the **button** and then click on the **Dedicated** selection.
5. Click on the **4-letter RPG ID** of the RPG that has a dedicated connection to the Small OPUP being installed. The selection will become highlighted.
6. Click on the **Select All Products** button to select and highlight all of the available products.
7. Click on the **Space Needed** icon, in the space 1 portion of the window, to have the OPUP calculate the amount of hard drive disk space needed to store the products selected. This could take a minute to complete. Once completed, a feedback message of `XX.XX Megs Needed` is displayed next to the `Space Needed` button and on the status line at the bottom of the window.
8. Click in the box under `Archive Name :` in the step 2 `Saved Archive by Name` area of the window, to activate the field for text entry. Enter the name **archive_test**.

ATTACHMENT 4 (Continued)

SMALL OPUP ARCHIVE IV TEST PROCEDURE

NOTE

This step DOES NOT copy the archive product data set to the Archive IV disk. Copying the archive product data set to the Archive IV disk must be done from the System Administrator account via the OPUP Manager Main Menu.

9. Click on the **Create Archive** button. The message `Backup Done!` will be displayed on the status line at the bottom of the window and in a small Notice pop-up window.
10. Click on the **OK** button in the small Notice pop-up window.
11. Click on the red double arrow **EXIT** button near the lower right hand corner of the window to close the `Archive` window and return to the Status and Control window.
12. Click on the red double arrow **EXIT** button near the upper right hand corner of the Status and Control window to close the window.
13. Logout of CDE as follows:
 - a. Click on the **EXIT** button near the bottom center of the CDE front panel.
 - b. In the `Logout Confirmation` pop-up window, click on the **OK** button to continue to logout.

Writing Data to the Archive IV Disk

14. Insert a CD-ROM into the Archive IV drive.
15. Login to the OPUP as the System Administrator using the user name of **opupmgr** and the site specific `opupmgr_password`.
16. Once the CDE is displayed, click on the **Netscape globe** icon on the left side of the CDE front panel to start the Netscape browser. One or more Netscape pop-up windows may appear with various messages. Click on the **OK** button in each one until the Netscape home menu is displayed.
17. Click anywhere on the grey background area of the Netscape home menu to start the sign on process.
 - a. In the `User ID:` box, enter **opupmgr** then press either the **<Return>** or the **<Tab>** key to place the cursor in the `Password:` box.

ATTACHMENT 4 (Continued)

SMALL OPUP ARCHIVE IV TEST PROCEDURE

- b. In the `Password:` box enter the same site specific `opupmgr_password` that was used previously.
 - c. Click on the **OK** button.
18. From the OPUP Manager Main Menu, click on the **OPUP Archive Menu** button to display the OPUP Archive Menu.
19. From the OPUP Archive Menu, click on the **Check Archive** button to open up The Existing Archives on Server window. This window displays a complete list of all the existing archives on the OPUP hard drive. Ensure that an archive name does exist ending with `archive_test` as defined in step 8 above in the upper half of the window.
20. Click on the **Return to Last Screen** button to return to the OPUP Archive Menu.
21. Click on the **Create Archive** button to display a window titled `Please Select Archive Case to create to Cdrom`.
22. In the `Select Case` column, click on the radio button corresponding to the Available Archive Case ending with `archive_test` to highlight it.
23. Click on the **Create Archive** button. A `Create Archive` confirmation window will be displayed once the process is complete. This could take several minutes to appear, depending on how many products were selected for archive.
24. Click on the **Return to Main Menu** button to return to the OPUP Manager Main Menu.

Erase Original Data Set from OPUP Hard Drive and Copy Data Set from Archive IV Disk Back to the OPUP Hard Drive

25. From the OPUP Manager Main Menu, click on the **OPUP Archive Menu** button to display the OPUP Archive Menu.
26. From the OPUP Archive Menu, click on the **Check Content of CDROM** button to display the `Content of CDROM` window. This window lists all of the available data on the Archive IV disk. Ensure the archive set ending with `archive_test` is displayed in the upper half of the window.
27. Click on the **Return to Last Screen** button.
28. Click on the **Erase Archive** button to display a window titled `OPUP manager Erelease Archive`. Click on the **Yes** button to continue.

ATTACHMENT 4 (Continued)

SMALL OPUP ARCHIVE IV TEST PROCEDURE

29. In the Please select archive case to erease from server window, in the Select Case column, click on the radial button corresponding to the Available Archive Case ending with archive_test to highlight it.
30. Click on the **Erase Archive** button. An Erase Archive confirmation window will be displayed. This acknowledges that the archive data set has been erased from the OPUP hard drive.
31. Click on the **Return to Main Menu** button to return to the OPUP Manager Main Menu.
32. Click on the **OPUP Archive Menu** button to display the OPUP Archive Menu.
33. Click on the **Restore Archive** button to display a window titled The content of the inserted CDRom is as follow: This window lists all of the available archive data sets on the Archive IV disk. Ensure the archive set ending with archive_test is displayed in the window.
34. Click on the **Restore Archive** button. A Restore Archive confirmation window will be displayed once the process is complete. This could take several minutes to appear, depending on how many products are in the archive data set.
35. Click on the **Return to Main Menu** button to return to the OPUP Manager Main Menu.
36. Logout of CDE as follows:
 - a. Click on the **EXIT** button near the bottom center of the CDE front panel.
 - b. In the Logout Confirmation pop-up window, click on the **OK** button to continue to logout.

Read Data Off of the OPUP Hard Drive and Display it on the Monitor

37. Login as an OPUP user, using the user name and password created in [ATTACHMENT 2](#), steps 11 through 15.
38. Once the CDE is displayed, click on the **Status & Control** icon near the left hand side of the CDE front panel to display the Status and Control window.
39. Click on the **Restore** selection near the top right hand side of the window to display the Restore window.
40. In the Existing Archive column, click on the data set named archive_test to highlight it.

ATTACHMENT 4 (Continued)

SMALL OPUP ARCHIVE IV TEST PROCEDURE

NOTE

This step makes the archive product data available to be viewed via the Archive Product Display and Archive Status Log GUIs.

41. Click on the **Restore Archive** icon (meshed gears) at the bottom left of the window. The message `Archive Restored!` will be displayed in a small `Success` pop-up window once the process is complete.
42. Click on the **OK** button in the small `Success` pop-up window.
43. Click on the red double arrow **EXIT** button near the lower right hand corner of the `Restore` window to return to the `Status and Control` window.
44. Click on the red double arrow **EXIT** button near the upper right hand corner of `Status and Control` window to close that window.

NOTE

The OPUP software does not allow simultaneous display of current and archived data. Therefore, no real-time OPUP applications, like the PDGUI, can be active during the final few steps of this procedure.

45. Ensure that PDGUI and all other real-time OPUP applications are not active.
46. Click on the **Archive Product Display** icon near the right hand side of the CDE front panel to display the `Archive - Product Display` GUI.

NOTE

The Archive - Product Display GUI has the same look and feel as the real-time PDGUI. However, some operational functions that would not make sense for viewing archived data (alerts, auto-dial, etc.) are not available and not executable (greyed-out).

47. Click on a small green square **Product Selection** button in any of the 12 display panels to display the small `Product Selection` pop-up window.
48. Click on the **Apply** button in the lower left hand corner. This should result in a product being displayed in that panel. This verifies all Archive IV functions are working.
49. Close the Archive - Product Display GUI window by clicking on the - (dash or minus sign) button in the upper left hand corner of the window to display a drop down option menu. Click on **Close** at the bottom of the drop down option menu.

ATTACHMENT 5

SMALL OPUP UPS TEST PROCEDURE

1. Unplug the UPS from the wall outlet.
 - a. The UPS should BEEP and an audible hum should come from the UPS. The BEEPs should repeat at 30-second intervals.
 - b. Observe the Monitor. The server should remain on-line for 5 minutes before the shutdown script begins.
 - c. At the end of the shutdown script the server should power OFF automatically. The power LED should go out, and the BEEPs should stop.
 - d. Wait 30 seconds after the power LED goes out before proceeding to the next step.
2. Plug the UPS back into the wall outlet and press the power button on the front of the server to power up the OPUP. The server should power on and boot up normally all the way to the CDE login window.
3. Repeat steps 1 through 8 in [ATTACHMENT 2](#) to login as **opupmgr**, start the Netscape browser and login again as **opupmgr**, and check the OPUP process status window.
4. Click on the **Return to Main Menu** button to return to the OPUP Manager Main Menu.
5. Logout of CDE as follows:
 - a. Click on the **EXIT** button near the bottom center of the CDE front panel.
 - b. In the Logout Confirmation pop-up window, click on the **OK** button to continue to logout.
6. For normal every day use, login to the OPUP using the user name and password that was created in [ATTACHMENT 2](#), steps 11 and 15.

ATTACHMENT 6

EFFECTIVITY

Table 1: Sites Receiving a Stand Alone OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
AF ACADEMIC MET DEPT (TRAINING)	USAF ACADEMY, CO	PUP	AFF	FE7000
AF ACADEMY WEATHER UNIT	USAF ACADEMY, CO	PUP	AFF	FE7000
ALTUS AFB	ALTUS AFB, OK	PUP	LTS	FE4419
BASE X		OPUP	LSV	AFFTCB
BUCKLEY AFB	BUCKLEY AFB, CO	PUP	BKF	FE6061
CANNON AFB	CANNON AFB, NM	PUP	CVS	FE4855
DOBBINS ARB	DOBBINS ARB, GA	PUP	NCQ	FE6703
DYESS AFB	DYESS AFB, TX	PUP	DYS	FE4661
EGLIN AFB	EGLIN AFB, FL	PUP	VPS	FE2823
ELLSWORTH AFB	ELLSWORTH AFB, SD	PUP	RCA	FE4690
FE WARREN AFB	FE WARREN AFB, WY	PUP	FEW	FE4613
FT BENNING	FT BENNING, GA	PUP	LSF	FTBENN
FT CARSON	FT CARSON, CO	PUP	FCS	FTCARS
GRISSOM ARB	GRISSOM ARB, IN	PUP	GUS	FE4654
HURLBURT FIELD	HURLBURT FIELD, FL	PUP	HRT	FE4417
LAJES AB	LAJES AB, AZR	PUP	PLA	FE4486
MACDILL AFB	MACDILL AFB, FL	PUP	MCF	FE4814

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 1: Sites Receiving a Stand Alone OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
MALMSTROM AFB	MALMSTROM AFB, MT	PUP	GFA	FE4626
McCONNELL AFB	McCONNELL AFB, KS	PUP	IAB	FE4621
OFFUTT AFB	OFFUTT AFB, NE	PUP	OFF	FE4600
PATRICK AFB	PATRICK AFB, FL	PUP	COF	FE2520
PETERSON AFB	PETERSON AFB, CO	PUP	COS	FE2500
SHEPPARD AFB	SHEPPARD AFB, TX	PUP	SPS	FE3020
TINKER AFB	TINKER AFB, OK	PUP	TIK	FE2037
VANCE AFB	VANCE AFB, OK	PUP	END	FE3029
VANDENBERG AFB	VANDENBERG AFB, CA	PUP	VBG	FE4610
WHITEMAN AFB	WHITEMAN AFB, MO	PUP	SZL	FE4625
WRIGHT-PATTERSON AFB	WRIGHT-PATTERSON AFB, OH	PUP	FFO	FE2300

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 2: ROC Installed Stand Alone Versions of the OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
BARKSDALE AFB	BARKSDALE AFB, LA	PUP	BAD	FE4608
MCAF QUANTICO	MCAF QUANTICO, VA	PUP	NYG	M00262
MCAS BEAUFORT	MCAS BEAUFORT, SC	PUP	NBC	N60169
MCAS CAMP PENDLETON	MCAS CAMP PENDLETON, CA	PUP	NFG	M67604
MCAS CHERRY PT	MCAS CHERRY PT, NC	PUP	NKT	N00146
MCAS FUTENMA	MCAS FUTENMA, JA	PUP	NFO	FH5270
MCAS KANEOHE BAY	MCAS KANEOHE BAY, HI	PUP	NGF	N00318
MCAS MIRAMAR	MCAS MIRAMAR, CA	PUP	NKX	N60259
MCAS NEW RIVER	MCAS NEW RIVER, NC	PUP	NCA	N62573
MCAS YUMA	MCAS YUMA, AZ	PUP	NYL	M62974
NAS BRUNSWICK	NAS BRUNSWICK, ME	PUP	NHZ	N60087
NAS CORPUS CHRISTI	NAS CORPUS CHRISTI, TX	PUP	NGP	N65769
NAS FALLON	NAS FALLON, NV	PUP	NFL	N60495
NAS FT Worth	NAS FT Worth, TX	PUP	NFW	N65770
NAS KEY WEST	NAS KEY WEST, FL	PUP	NQX	N65773
NAS KINGSVILLE	NAS KINGSVILLE, FL	PUP	NQI	N60241

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 2: ROC Installed Stand Alone Versions of the OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
NAS LEMOORE	NAS LEMOORE, CA	PUP	NLC	N63042
NAS MERIDIAN	NAS MERIDIAN, MS	PUP	NMM	N63043
NAS NEW ORLEANS	NAS NEW ORLEANS, LA	PUP	NBG	N00206
NAS NORFOLK	NAS NORFOLK, VA	PUP	NGU	N00188
NAS NORTH ISLAND	NAS NORTH ISLAND, CA	PUP	NZY	N00246
NAS OCEANA	NAS OCEANA, VA	PUP	NTU	N60191
NAS PAX RIVER #1	NAS PAX RIVER, MD	OPUP	NHK	N04281
NAS PAX RIVER #2	NAS PAX RIVER, MD	OPUP	NHKZ	N04281
NAS PENSACOLA	NAS PENSACOLA, FL	PUP	NPA	N42101
NAS WHIDBEY ISLAND	NAS WHIDBEY ISLAND, WA	PUP	NUW	N00620
NAS WHITING FIELD	NAS WHITING FIELD, FL	PUP	NDZ	N65782
NAS WILLOW GROVE	NAS WILLOW GROVE, PA	PUP	NXX	N66471
NAVCOMFAC JACKSONVILLE	NAVCOMFAC JACKSONVILLE, FL	PUP	NIP	N00207
NAVSTA MAYPORT	NAVSTA MAYPORT, FL	PUP	NRB	N00207
NAWCWD POINT MUGU	NAWCWD POINT MUGU, CA	PUP	NTD	N63126
NAWS CHINA LAKE	NAWS CHINA LAKE, CA	PUP	NID	N60530
NEOC NORFOLK	NEOC NORFOLK, VA	PUP	NGU	N63061
NWOC PEARL HARBOR	NWOC PEARL HARBOR, HI	PUP	HNC	N62363

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 2: ROC Installed Stand Alone Versions of the OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
SPAWAR CHARLESTON, SC		PUP		
SPAWAR SAN DIEGO, CA		PUP		

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 3: Sites that will not Receive a Small OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
ANDERSEN AFB COMMAND POST	ANDERSEN AFB, GU	PUP	UAM	FE5240
ANDERSEN AFB	ANDERSEN AFB, GU	PUP	UAM	FE5240
ANDREWS AFB	ANDREWS AFB, MD	PUP	ADW	FE4425
BEALE AFB	BEALE AFB, CA	PUP	BAB	FE4686
CAMP HUMPHREYS	CAMP HUMPHREYS, KO	PUP	PTK	FI5294
CAMP STANLEY	CAMP STANLEY, KO	PUP	KST	FH5294
CAPE CANAVERAL AFS	CAPE CANAVERAL AFS, FL	PUP	XMR	EY1006
CAPE CANAVERAL AMU	CAPE CANAVERAL AFS, FL	PUP	XMR	EY1006
CHARLESTON AFB	CHARLESTON, SC	PUP	CHS	FE4418
COLUMBUS AFB	COLUMBUS AFB, MS	PUP	CBM	FE3022
DAVIS MONTHAN AFB	DAVIS MONTHAN AFB, AZ	PUP	DMA	FE4877
DOVER AFB	DOVER AFB, DE	PUP	DOV	FE4497
EDWARDS AFB	EDWARDS AFB, CA	PUP	EDW	FE2805
EIELSON AFB	EIELSON AFB, AK	PUP	EIL	FE5004
* ELMENDORF AFB	ELMENDORF AFB, AK	PUP	EDF	FE5000
ELMENDORF AFB 11WS AFU	ELMENDORF AFB, AK	PUP	EDF	FE5000

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 3: Sites that will not Receive a Small OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
FAIRCHILD AFB	FAIRCHILD AFB, WA	PUP	SKA	FE4620
FT BELVOIR	FT BELVOIR, VA	PUP	DAA	FE4425
FT BRAGG SIMMONS AAF	FT BRAGG SIMMONS AAF, NC	PUP	FBG	FE4488
FT CAMPBELL	FT CAMPBELL, KY	PUP	HOP	FY4812
FT DRUM	FT DRUM, NY	PUP	GTB	FY4846
FT EUSTIS	FT EUSTIS, VA	PUP	FAF	FE4800
FT HOOD	FT HOOD, TX	PUP	HLR	FY4824
FT IRWIN	FT IRWIN, CA	PUP	BYS	FTIRWI
FT KNOX	FT KNOX, KY	PUP	FTK	FTKNOX
FT LEWIS	FT LEWIS, WA	PUP	GRF	FE4479
FT POLK	FT POLK, LA	PUP	POE	FY4825
FT RITCHIE	FT RITCHIE, MD	PUP	JWX	FE4425
FT RUCKER	FT RUCKER, AL	PUP	LOR	FY4805
FT WAINWRIGHT	FT WAINWRIGHT, AK	PUP	FBK	FE5004
GRAND FORKS AFB	GRAND FORKS AFB, ND	PUP	RDR	FE4659
* HICKAM AFB	HICKAM AFB, HI	PUP	HIK	FE5260
HILL AFB	HILL AFB, UT	PUP	HIF	FE2027
HOLLOMAN AFB	HOLLOMAN AFB, NM	PUP	HMN	FE4801

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 3: Sites that will not Receive a Small OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
HOMESTEAD AFB	HOMESTEAD AFB, FL	PUP	HST	FE6648
HQ AWS PENTAGON	WASHINGTON, DC	PUP	JPN	FE4425
HUNTER ARMY AIR FIELD	HUNTER ARMY AIR FIELD, GA	PUP	SVN	FTSTEW
KADENA AB	KADENA AB, JA	PUP	KAD	FH5270
KEESLER AFB	KEESLER AFB, MS	PUP	BIX	FE3010
KEESLER AFB BWS	KEESLER AFB BWS, MS	PUP	BIX	FE3010
KELLY AFB	KELLY AFB, TX	PUP	SKF	FE2053
KIRTLAND AFB	KIRTLAND AFB, NM	PUP	IKR	FE4469
KUNSAN AB	KUNSAN AB, KO	PUP	KUZ	FH5284
LANGLEY AFB	LANGLEY AFB, VA	PUP	LFI	FE4800
LAUGHLIN AFB	LAUGHLIN AFB, TX	PUP	DLF	FE3099
LITTLE ROCK AFB	LITTLE ROCK AFB, AR	PUP	LRF	FE4460
LUKE AFB	LUKE AFB, AZ	PUP	LUF	FE4887
MARCH AFB	MARCH AFB, CA	PUP	RIV	FE4664
MAXWELL AFB	MAXWELL AFB, AL	PUP	MXF	FE3300
McCLELLAN AFB	McCLELLAN AFB, CA	PUP	MCC	FE2047
McGUIRE AFB	McGUIRE AFB, NJ	PUP	WRI	FE4484
MINOT AFB	MINOT AFB, ND	PUP	MIB	FE4528

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 3: Sites that will not Receive a Small OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
MOODY AFB	MOODY AFB, GA	PUP	VAD	FE4830
MT HOME AFB	MT HOME AFB, ID	PUP	MUO	FE4897
NAS ROOSEVELT RD	NAS ROOSEVELT RD, PR	PUP	NRR	N00389
NELLIS AFB	NELLIS AFB, NV	PUP	LSV	FE4852
OSAN AB	OSAN AB, KO	PUP	KSO	FH5294
OSAN AB HTACC	OSAN AB, KO	PUP	KFU	FH5294
POPE AFB NC	POPE AFB, NC	PUP	POB	FE4488
RANDOLPH AFB	RANDOLPH AFB, TX	PUP	RND	FE3089
ROBINS AFB	ROBINS AFB, GA	PUP	WRB	FE2067
SCOTT AFB OSS/OWF (BASE WX STA)	SCOTT AFB, IL	PUP	BLV	FE4407
SELFRIIDGE ANGB	SELFRIIDGE ANGB, MI	PUP	MTC	FE6221
SEYMOUR-JOHNSON AFB	SEYMOUR-JOHNSON AFB, NC	PUP	GSB	FE4809
SHAW AFB	SHAW AFB, SC	PUP	SSC	FE4803
TRAVIS AFB	TRAVIS AFB, CA	PUP	SUU	FE4427
TYNDALL AFB	TYNDALL AFB, FL	PUP	PAM	FE4819
WESTOVER ANGB	WESTOVER ANGB, MA	PUP	CEF	FE6606
WHEELER AFB	WHEELER AFB, HI	PUP	HHI	FE5260
WHT SANDS MISSILE RNG	WHT SANDS MISSILE RNG, NM	PUP	2C2	W43HZD

ATTACHMENT 6 (Continued)

EFFECTIVITY

Table 3: Sites that will not Receive a Small OPUP

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
WRIGHT-PATTERSON, AFIT	WRIGHT-PATTERSON AFB, OH	PUP	FFO	FH2301
YUMA PROVING GROUND	YUMA PROVING GROUND, AZ	PUP	LGF	W04XAY

* Sites will receive a medium OPUP under a seperate TCTO.

ATTACHMENT 9

SMALL OPUP INSTALLATION COMPLETION FORM

Site Name: _____

Site Identifier: _____

Total Time to Complete this Modification Document: _____

Technician's Name(s): _____

Technician's Phone Number: _____

Date Completed: _____

Problem(s) Encountered:

Upon completing this form, return it to the ROC by one of the following methods:

1. Mailing Address: Program Branch, Retrofit Management Team
WSR-88D Radar Operations Center
3200 Marshall Ave., Suite 101
Norman, OK 73072-8028
2. FAX Number: (405) 366-6553
ATTN: Retrofit Management Team
3. E-mail Address: NEXRAD.Logistics@noaa.gov
4. Web Version: <http://www.roc.noaa.gov/ssb/logistics/complete/>